

Section 101 Slide Presentation

[Slide 1]

WHAT DID APPLICANT INVENT?

- Read the Specification & Claims
- Note Background & Environment
- Note Specific Embodiments
 - How Configured?
 - What Function is Performed?
 - How Does Computer Relate to Other Subject Matter?
- Go to Box 2 << Flowchart Box 1 >>

[Slide 2]

DETERMINE WHETHER THE DISCLOSED INVENTION HAS A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- Practical Application in the Technological Arts is what defines “USEFUL” in 35 U.S.C. 101
- Did Applicant Assert a Practical Application or is a Practical Application Immediately Apparent to One Skilled in the Art?
- Go to Box 3 << Flowchart Box 2 >>

[Slide 3]

ANALYZE THE CLAIMS

- Must Perform the Analysis Before Making Any Determination Whether the Subject Matter Is Statutory
- Consider Each Claim Element and Correlate Each to the Corresponding Structures, Materials, or Acts/Steps Set Forth in Specification
- Determine the Meaning of Terms Used in the Claims Relying on the Application Disclosure
- Give Claims their Broadest Reasonable Interpretation in Light of the Specification<< Flowchart Box 3 >>

[Slide 4]

ANALYZE THE CLAIMS

- Determine the Scope of “Means Plus Function” Limitations Using 112, 6th Paragraph Guidelines
- Identify Section 112, 6th Paragraph, Limitation
 - No Magic Language
 - Element in Claim Set Forth by Function Performed
 - Jet Driving Device ... To Drive Rotor - Ex Parte Stanley, 121 USPQ 621 (Bd. App.1958)
 - Printing Means = Means for Printing - Ex Parte Klumb, 159 USPQ 694 (Bd. App. 1967)
- << Flowchart Box 3 >>

[Slide 5]

ANALYZE THE CLAIMS

- Force Generating Means Adapted to - De Graffenreid V. U.S., 20 Ct. Cl. 458, 16 USPQ 2d 1321 (Ct. Cl. 1990)
- Call Cost Register Means ... For Providing - Intelligal Inc. V. Phonometrics, 952 F.2d 1384, 21 USPQ 2d 1383 (Fed. Cir. 1992)
- Reducing the Coefficient of Friction of the Resulting Film - In Re Roberts, 470 F.2d 1399, 176 USPQ 313 (CCPA 1973) (Step Plus Function) << Flowchart Box 3 >>

[Slide 6]

ANALYZE THE CLAIMS

- Raising pH of the Resultant Pulp to About 5.0 to Precipitate - Ex Parte Zimmerley, 153 USPQ 367 (Bd. App. 1966) (Step Plus Function)
- Single Means Claim Does Not Comply With Enablement Requirement of Section 112, 1st Paragraph, - In re Hyatt, 218 USPQ 195 (Fed. Cir. 1983)
- Section 112, 6th Paragraph, Limited to Claim Directed to Combination, Therefore, Not Applicable to Single Means Claim <<Flowchart Box 3>>

[Slide 7]

ANALYZE THE CLAIMS

- Scope Defined by Corresponding Structure, Materials, and the Equivalents
- 35 U.S.C. 112 (2nd Paragraph) - Lack of Correspondence <<Flowchart Box 3>>

[Slide 8]

DOES CLAIM COMPLY WITH 35 U.S.C. 112 1ST AND 2ND PARAGRAPHS?

- 35 U.S.C. 112 (1st Paragraph) Adequate Written Description and Enablement
- If Specific Program or Circuit is Disclosed the Disclosure is Probably Adequate
- If Block/Functional Elements Must Disclose How to Make/ Use to Yield the Claimed Invention
 - See M.P.E.P. Section 2106.01 on Enablement
 - See M.P.E.P. Section 2164.01 on Undue Experimentation <<Flowchart Box 3>>

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DOES CLAIM COMPLY WITH 35 U.S.C. 112 1ST AND 2ND PARAGRAPHS?

- Affidavits/Declarations Presenting 1.132 Evidence on Enablement
 - Must be Evaluated and Not Summarily Dismissed
 - Evaluated for Relevance and Evidentiary Weight
 - Objective Facts Are Required to Rebut <<Flowchart Box 3>>

[Slide 10]

DOES CLAIM COMPLY WITH 35 U.S.C. 112?

- 35 U.S.C. 112 (2nd Paragraph) Particularly Point Out and Distinctly Claim
- Consideration of Program Code
 - Person Skilled in the Art Must be Able to Ascertain Metes and Bounds
 - Self Documenting Code Is Acceptable
- If Claim is in “Means or Step Plus Function” Form but Disclosure Lacks Corresponding Structure, Materials or Acts
- Go to Box 4 <<Flowchart Box 3>>

[Slide 11]

SEARCH THE PRIOR ART

- Thorough Search of Claimed and Reasonably Expected to be Claimed Features
- U.S. Patents, Foreign Patent Documents, Non-Patent Literature
- Go to Box 5 <<Flowchart Box 4>>

[Slide 12]

CLASSIFY THE CLAIMED INVENTION

- Claims are Being Classified as Statutory or Non-Statutory by Following the Analysis of the Flowchart
- Do Not Try to Put Claims in Presumed Classification of Product (Machine/Manufacture), Process, or Non-Statutory Subject Matter at this Time - Complete the Process
- Go to Box 6 <<Flowchart Box 5>>

[Slide 13]

DETERMINE WHETHER THE CLAIM IS FUNCTIONAL DESCRIPTIVE MATERIAL, NON-FUNCTIONAL DESCRIPTIVE MATERIAL, OR A NATURAL PHENOMENON

- Functional Descriptive Material *per se*
 - Not Embodied in Computer-Readable Medium to Permit the Functionality to Be Realized
 - Data Structures *per se*
 - Programs *per se*
- Non-Statutory Subject Matter <<Flowchart Box 6>>

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DETERMINE WHETHER THE CLAIM IS FUNCTIONAL DESCRIPTIVE MATERIAL, NON-FUNCTIONAL DESCRIPTIVE MATERIAL, OR A NATURAL PHENOMENON

- Non-Functional Descriptive Material *per se* or On A Computer Readable Medium
 - Can Not Exhibit Any Structural/Functional Relationship to Computer or Process
 - Music, Literary Works, Mere Data
 - Is Non-Statutory
- Natural Phenomena - Claims that only recite such Phenomena (energy or magnetism, etc) are Non-Statutory
- If a YES Output from Box 6, Go to Box 7
- If a NO Output from Box 6, Go to Box 8 <<Flowchart Box 6>>

[Slide 15]

NON-STATUTORY SUBJECT MATTER

- Make *Prima Facie* Case to Support Conclusion
 - Clear Statement of Why Invention is Abstract Idea, Law of Nature, or Phenomenon of Nature
 - Point to Specific Disclosure Portions that Support Non-Statutory Conclusion
 - Rationale to Controvert any Assertions Made by Applicant <<Flowchart Box 7>>

[Slide 16]

NON-STATUTORY SUBJECT MATTER

- Appropriate Complete Office Action on the Merits is Required Including a Determination of Compliance with 35 U.S.C. 102 and 103
- Go to Box 16 <<Flowchart Box 7>>

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PROCESS CLAIMS

(Continuing from a NO Output in Box 6)

- One or More Acts (*Steps*)
- If Claim as a Whole is Directed to a Process (One or More Acts), Go to Box 12
- If Claim as a Whole Appears Not to be Directed to a Process, Go to Box 9
<<Flowchart Box 8>>

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PRODUCT CLAIMS

- Machine (Apparatus)
 - A Concrete Thing, Consisting of Parts or of Certain Devices and Combinations of Devices
- Article of Manufacture
 - The Production of Articles for Use from Raw or Prepared Materials by Giving to These Materials New Forms, Qualities, Properties or Combinations, Whether by Hand Labor or by Machinery
- Claims can Define A *Specific* Machine or Manufacture, or They Can Define ANY and EVERY Machine or Manufacture
- Go to Box 10 <<Flowchart Box 9>>

[Slide 19]

SPECIFIC MACHINE OR MANUFACTURE CLAIMS

- Specific Machine
 - Claims Recite Specific Hardware
 - Claims Recite Specific or General Hardware and Specific Functional Software
- <<Flowchart Box 10>>

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SPECIFIC MACHINE OR MANUFACTURE CLAIMS

- Specific Manufacture
 - Claim Requires Physical Hardware of Some Type
 - Claim Could be a Specific Memory and Specific Software
 - Claim Could be a General Memory and Specific Software
 - If YES to Either Specific Machine or Specific Manufacture, Go to Box 11
- <<Flowchart Box 10>>

[Slide 21]

NON-SPECIFIC MACHINE OR MANUFACTURE CLAIMS: ANY AND EVERY PRODUCT

- Claim Defines Physical Characteristics of Computer Only as Functional Steps (Except for Presence of Specific Element as Treated Below)
- Claim Encompasses ANY and EVERY Product of the Class (i.e., Memory) Configured in any Manner to Perform the Process
- Presence of Specific Hardware Element is Considered as Part of Claimed Invention Taken as Whole Analysis
- Significance of specific hardware element, whether as hardware component or means plus function format, must be determined <<Flowchart Box 10>>

[Slide 22]

NON-SPECIFIC MACHINE OR MANUFACTURE CLAIMS: ANY AND EVERY PRODUCT

- If Not Limited to Specific Machines/Manufactures - Analyze Based Upon the Underlying Process
- Analyzed Based Upon Underlying Process but Treated as a Product
- If NO to Both Specific Machine and Specific Manufacture, to Evaluate the Underlying Process of the Claim, Go to Box 12 <<Flowchart Box 10>>

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STATUTORY PRODUCT

- Appropriate Complete Office Action on the Merits is Required Including a Determination of Compliance with 35 U.S.C. 102 and 103
- Go to Box 16 <<Flowchart Box 11>>

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SAFE HARBORS FOR PROCESS CLAIMS OR ANY AND EVERY PRODUCT CLAIMS

- Safe Harbors - Physical Transformation Outside the Computer
- In the Phrase “Outside the Computer,” the Computer is Defined to Include Its Associated Peripherals (e.g. display, modem, and printer) (See the examples on page 21 of the Guidelines)
- Two Safe Harbors
 - Pre-Computer Processing Activity
 - Post-Computer Processing Activity <<Flowchart Box 12>>

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SAFE HARBORS FOR PROCESS CLAIMS OR ANY AND EVERY PRODUCT CLAIMS

- Pre-Computer Processing Activity
 - Requires Measurement of Physical Objects or Activities - i.e., Collects Real World Data (Where the Data Comprises Signals Corresponding to Physical Objects or Activities External to the Computer)

- Transformation Occurs when the Physical Object is Measured and the Result is Converted into Computer Recognizable Signals that Represent the Physical Object
<<Flowchart Box 12>>

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SAFE HARBORS FOR PROCESS CLAIMS OR ANY AND EVERY PRODUCT CLAIMS

- Post-Computer Processing Activity
 - Activity Performed on Physical Object
 - Object Must be Outside the Computer (Must be More than Merely Conveying the Result of Computer Operation)
 - If a YES output, Go to Box 14
 - If a NO output, Go to Box 13<<Flowchart Box 12>>

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CLAIMS TO A COMPUTER-IMPLEMENTED INVENTION NOT WITHIN A SAFE HARBOR

- Claims Not Within a Safe Harbor Are Statutory Unless Merely Manipulate Abstract Idea or Solve a Purely Mathematical Problem Without Any Limitation to a Practical Application in the Technological Arts
- Claims Not Within a Safe Harbor - Include Claims Where the Only Physical Transformation Is Inside the Computer
- Always Some Form of Physical Transformation Within a Computer
 - Computer Acts on Signals and Transforms Those Signals
 - Computer Changes the State of Its Components During the Execution of a Process
<<Flowchart Box 13>>

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COMPUTER-RELATED INVENTIONS LIMITED TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- Claim Not Within A Safe Harbor, by its Limitations, Must be Limited to a Practical Application in the Technological Arts
 - Determine “What”, i.e., significance of what, the Computer is Doing (*Not how it is doing it*)
 - Determine the Technological Art (*If process is conducted with the Computer it is in the Technological Arts*)
 - Determine How the Process is APPLIED (*Practical Application*)
Flowchart Box 13>>

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COMPUTER-RELATED INVENTIONS LIMITED TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- Computer-Related Inventions Limited to a Practical Application in the Technological Arts Determined by the Significance of “What” the Computer Does to Achieve a Practical Application (Not by “How” the Computer Performs the Process)
 - Transfer, Storage, Retrieval of Data Between Cache Memory and Hard Disk Storage to Increase Processing Speed

- › Controlling Parallel Processors for Multi-Tasking to Improve Computing Efficiency
- › Digital Filtering and Signal Correction to Improve Signal Processing
- › Displaying a Useful Graphical Image of the Result of the Computer-Implemented Process <<Flowchart 13>>

[Slide 30]

CLAIMS NOT WITHIN A SAFE HARBOR DETERMINING WHETHER A CLAIM IS LIMITED TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- › No Litmus Test
- › Review Written Description for Disclosed/Asserted Practical Application
- › Identify Technological Art
- › Review Claim as a Whole
 - › Steps Result in the Disclosed Practical Application
 - › Process Within the Technological Arts
 - › Steps Applied to Produce “Real World Result”
 - › More than Manipulate Abstract Ideas <<Flowchart Box 13>>

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CLAIMS NOT WITHIN A SAFE HARBOR -DETERMINING WHETHER A CLAIM IS LIMITED TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- › Must Evaluate Any Statements of Intended Use or Field of Use, Any Data Gathering Steps, and Any Post-Manipulation Activity
- › If the Claimed Invention Cannot Be Classified as an Abstract Idea or Law of Nature or Natural Phenomenon Without Any Limitation to a Practical Application, Then It Is To Be Treated as Statutory. <<Flowchart Box 13>>

[Slide 32]

CLAIMS NOT WITHIN A SAFE HARBOR -DETERMINE WHETHER A CLAIM IS LIMITED TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- › The Record Should Be Clear
 - › Readily Apparent From the Record
 - › Reasons for Allowance (See M.P.E.P. Section 1302.14) <<Flowchart Box 13>>

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CLAIM LANGUAGE CAPABLE OF LIMITING THE CLAIM TO A PRACTICAL APPLICATION IN THE TECHNOLOGICAL ARTS

- › If language as a whole can be interpreted as non-limiting, reject claim as non-statutory
 - › Expressly identify any claim language that is being treated as non-limiting
 - › Withdraw rejection if applicant specifically identifies in the record the language that actually limits the claim to a practical application in the technological arts
 - › Record reasons for withdrawing the rejection, including reliance on applicant’s admissions
- <<Flowchart Box 13>>

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ANALYZING CLAIMS CONTAINING MATHEMATICAL STEPS

- Field of Use
 - Generally not a Limitation if Simply Specifies an Intended Use
 - See M.P.E.P., Section 2111.02
- Data Gathering
 - Creating/Collecting Data Representing Physical Objects as an Antecedent Step is a Limitation
 - Mere Selection of a Variable for a Mathematical Operation is not a Limitation
- Post Solution Activity
 - Generally a Limitation Unless Limited to Providing the Direct Result of a Mathematical Operation and Nothing More <<Flowchart Box 13>>

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NON-STATUTORY CLAIMS

- Merely Manipulates Abstract Idea or Concept (*Process is Not Applied to Appropriate Subject Matter*)
- Purely Mathematical Operations (*Process Only Acts On/Converts Numbers - Not Applied to Appropriate Subject Matter*)
- Process Claims Where the Only Physical Transformation Is Inside the Computer and NOT Claimed as Limited to a Practical Application <<Flowchart Box 13>>

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SUGGESTING POTENTIAL CORRECTIONS TO NON-STATUTORY CLAIMS

- Applicable to Both Process Claims and Any and Every Implementation Product Claims Based Upon an Underlying process
- Where the Examiner Has Rejected the Claim as Being Non-Statutory, the Suggestion of Potential Corrections is Encouraged
- Must be Supported by the Disclosure (No New Matter)
- Suggest Amendments for Claim to Fall into at Least One Safe Harbor
- Suggest Amendments to Limit the Claim to the Practical Application in the Technological Arts the Examiner Identified in the Analysis under Box 2, above <<Flowchart Box 13>>

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SUGGESTING POTENTIAL CORRECTIONS TO NON-STATUTORY CLAIMS

- Point Out Practical Application in the Technological Arts to Applicant and Suggest that Applicant Present Amendments to Limit the Claim to that Practical Application <<Flowchart Box 13>>

[Slide 38]

STATUTORY SUBJECT MATTER

- Appropriate Complete Office Action on the Merits Required Including a Determination of Compliance with 35 U.S.C. 102 and 103
- Go to Box 16 <<Flowchart Box 14>>

[Slide 39]

NON-STATUTORY SUBJECT MATTER

- Make *Prima Facie* Case to Support Conclusion
 - Clear Statement of Why Invention is Abstract Idea, Law of Nature, or Phenomenon of Nature
 - Point to Specific Disclosure Portions that Support Non-Statutory Conclusion
 - Rationale to Controvert any Assertions Made by Applicant <<Flowchart Box 15>>

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NON-STATUTORY SUBJECT MATTER

- Appropriate Complete Office Action on the Merits is Required Including a Determination of Compliance with 35 U.S.C. 102 and 103
- Go to Box 16 <<Flowchart Box 15>>

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COMPLIANCE WITH 35 U.S.C. 102 AND 103

- Applied as in Any Other Technology
- If the Difference Between the Prior Art and the Claim Is Limited to Descriptive Material
 - Determine Whether the Descriptive Material is Functional or Non-Functional
 - Functional Material (Computer Program or Data Structure) Is a Limitation and Must Be Considered Under Section 103
 - Non-Functional Material (e.g. Music, Literary Works, or Mere Data) Can Not Distinguish an Invention Under Section 103 <<Flowchart Box 16>>

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TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER 35 U.S.C. SECTIONS 102 AND 103

- Examiner Must Establish *Prima Facie* Case
 - Specified Function Performed
 - Element Not Excluded By Explicit Definition in Specification
 - Infer Equivalency <<Flowchart Box 16>>

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TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER 35 U.S.C. SECTIONS 102 AND 103

- Burden of Going Forward Shifts to Applicant
 - Examiner Must Make Section 103 Analysis Where Prior Art Element is Not Anticipatory
 - Examiner Should Make Section 102/103 When Uncertain <<Flowchart Box 16>>

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**TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER
35 U.S.C. SECTIONS 102 AND 103**

- Treatment of Rebuttal Evidence
 - Presentation of Reasons for Non-Equivalence
 - Specification Teaches Non-Equivalence
 - Reference Itself Shows Non-Equivalence
 - 1.132 Affidavit Admits Non-Equivalence
 - Examiner to Check for Consistency in Definition
 - Disclosure May be so Broad As to Encompass Any and All Structure, Material or Acts
 - Specification May Be Constricting (Limited to Virtually Only the Disclosed Embodiments)
- <<Flowchart Box 16>>

[Slide 45]

**TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER
35 U.S.C. SECTIONS 102 AND 103**

- Meeting Burden of Proof For Equivalence
 - Element Must Perform Identical Function
 - No Litmus Test for “Equivalent”
 - Indicia: Sufficient Conditions for Equivalence
 - Element Performs Function in Substantially Same Way and Produces Substantially Same Result
 - Art Recognized Equivalent
 - Structural Equivalent
 - Insubstantial Change Adding Nothing of Significance to Prior Art Element
- <<Flowchart Box 16>>

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**TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER
35 U.S.C. SECTIONS 102 AND 103**

- Treatment of Arguments
 - Examiner Should Not Accept Bare Statement of Non-Equivalence in Applicant’s Arguments
 - Require Claims to be Amended to Recite Specific Structural or Additional Functional Characteristics Where Arguments Not Consistent with Specification
- <<Flowchart Box 16>>

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**TREATMENT OF MEANS OR STEP PLUS FUNCTION LIMITATION UNDER
35 U.S.C. SECTIONS 102 AND 103**

- Affidavits/Declarations Presenting 1.132 Evidence
 - Must be Evaluated and Not Summarily Dismissed
 - Evaluated for Relevance and Evidentiary Weight

- Objective Facts Are Required to Rebut <<Flowchart Box 16>>

[Slide 48]

REVIEW CONCLUSIONS

- Reevaluate Any Initial Conclusions You May Have Made in Light of the Analysis You Just Concluded. Repeat the Analysis if Necessary or Consult with Your SPE for Additional Help. <<Flowchart Box 16>>